UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

FEB 0 9 2009

[redacted]
10112 Wolf Road
Richwoods, MO 63071

Re: EPA Sampling Results for EPA ID #5008

Dear Owner:

The U.S. Environmental Protection Agency (EPA) has sampled residential properties in Washington County for potential contamination from past mining activities in the area. As you may recall, we visited your property at 10112 Wolf Road in Richwoods, Missouri, on 8/19/2008. At that time, we collected soil, dust, and water samples for analysis. . I have enclosed the results of this sampling analysis, and the results of the lead concentrations for this sampling are shown in the table below.

Property	BV Sample No.	Matrix	Quadrant	XRF Pb Result	ASR No.	Lab Result
5008 [redacted] 10112 Wolf Rd Richwoods, MO 63071 [redacted]	ASGRXA3-5008	Soil	F1	765 ppm	--	--
	BSGRXA3-5008	Soil	F2	458 ppm	--	--
	CSGRXA3-5008	Soil	B1	468 ppm	--	--
	DSGRXA3-5008	Soil	B2	893 ppm		
	ESGRXA3-5008	Soil	DZ	770 ppm	--	--
	MDCPLZZ-5008	Dust-Vacuum	--	--	3902-130	230 ppm
	IWGPLZZ-5008	Dust-Wipe	Living Room	--	3902-288	ND
	ZWGPLZZ-5008	Dust-Wipe	Kitchen	--	3902-289	ND
	JWGPLZZ-5008	Dust-Wipe	Bedroom	--	3902-290	ND
Sampled: 8-19-2008	ZPGPLZZ-5008	Water	--	--	3903-101	3.1 µg/L

Note. ND indicates the analyte was analyzed for, but no quantifiable concentration was found at or above the reporting limit

Thank you for allowing us to sample your property. I have also enclosed a field sketch that indicates where the soil samples were collected at your property and a fact sheet that discusses the health effects of lead exposure and how to limit or prevent your exposure to lead. The EPA recommends that individuals exposed to lead have their blood lead levels tested. For information on blood lead testing, contact your physician or the Washington County Health Department at 573-438-2164.

30289753

The following table has been provided to help you determine what action is being planned for soil lead contamination at your property:

SOIL CONCENTRATION	PLANNED ACTION
0 - 400 ppm	Lead levels below 400 ppm are generally considered to be acceptable. No action has been planned for residential yards with lead levels in this range.
400 - 799 ppm	The current removal action is not addressing residential yards with lead levels in this range unless the home has a child less than 6 years of age with elevated blood lead (blood lead concentration > 10 µg/dl). These yards are planned to be addressed during future response actions.
>800 ppm	Residential yards with lead levels above 800 ppm are eligible for surface soil replacement during the current response action. EPA will recommend the home owner take action if the Drip Zone only is elevated. The drip zone extends 6 to 30 inches away from the home/building. Based on the age of the home/building, this area may be influenced by lead-based paint.

The EPA regulations contained in 40 CFR 745, section 227(h)(3)(i) indicate that a dust-lead hazard is present in a residential dwelling when the lead loading is equal to or greater than 40 micrograms per square foot ($\mu g/ft^2$) for floors based on dust wipe sampling. Our recent dust wipe sampling results for lead from your home were below this standard. The EPA does not have any regulatory criteria for the other metals detected in the wipe samples.

Although the vacuum dust sampling results detected lead and other metals in interior dust, the EPA does not have any regulatory criteria for metals concentrations in interior dust. The vacuum dust data is being evaluated by EPA to better understand the transfer of lead in soil to the inside of homes in Washington County. This soil transfer information will ultimately be utilized to develop a final cleanup standard for lead in soil at the Washington County Lead District Sites.

Analytical results for your water indicate that the analytes were below the EPA maximum contaminant levels (MCLs), and no further action is needed.

If you have any questions about the ongoing environmental response occurring in the Washington County Lead District sites, please contact Bruce A. Morrison at 913-551-7755 or 1-800-223-0425 during normal business hours. Thank you.

Sincerely,

Bruce A. Morrison

Bruce A. Morrison
Project Manager, Superfund Division

Enclosures

ASR Number: 3903 **RLAB Approved Sample Analysis Results** **01/07/2009**

Project ID: BMA78N01 **Project Desc:** Washington County Lead District - Richwoods RI sampling

Analysis/ Analyte	Units	101-__
1 Metals in Water by ICP		
Aluminum	ug/L	50 U
Antimony	ug/L	50 U
Arsenic	ug/L	25 U
Barium	ug/L	460
Beryllium	ug/L	3 U
Cadmium	ug/L	3 U
Calcium	mg/L	65.2
Chromium	ug/L	15 U
Cobalt	ug/L	10 U
Copper	ug/L	5 U
Iron	ug/L	50 U
Lead	ug/L	50 U
Magnesium	mg/L	39.0
Manganese	ug/L	5 U
Molybdenum	ug/L	15 U
Nickel	ug/L	20 U
Potassium	mg/L	2 00 U
Selenium	ug/L	50 U
Silver	ug/L	25 U
Sodium	mg/L	10.8
Thallium	ug/L	50 U
Titanium	ug/L	20 U
Vanadium	ug/L	10 U
Zinc	ug/L	97
1 Metals in Water by ICP/MS		
Antimony	ug/L	2.0 U
Arsenic	ug/L	1.0 U
Barium	ug/L	494
Beryllium	ug/L	1.0 U
Cadmium	ug/L	1.0 U
Chromium	ug/L	2.0 U
Cobalt	ug/L	1 0 U
Copper	ug/L	2 0 U
Lead	ug/L	3.1
Manganese	ug/L	1.1
Nickel	ug/L	2.3
Selenium	ug/L	5 0 U
Silver	ug/L	1 0 U
Thallium	ug/L	1.0 U
Vanadium	ug/L	1.0 U
Zinc	ug/L	80 0 J

Analysis/ Analyte	Units	130-___
2 Metals in Solids by ICP		
Aluminum	mg/kg	6480
Antimony	mg/kg	8.1
Arsenic	mg/kg	5.0 U
Barium	mg/kg	2700
Beryllium	mg/kg	1.0 U
Cadmium	mg/kg	5.1
Calcium	mg/kg	27200
Chromium	mg/kg	36.8
Cobalt	mg/kg	5.67
Copper	mg/kg	122
Iron	mg/kg	18900
Lead	mg/kg	230
Magnesium	mg/kg	9190
Manganese	mg/kg	401
Molybdenum	mg/kg	7.32
Nickel	mg/kg	33.9
Potassium	mg/kg	3590
Selenium	mg/kg	9.9 U
Silver	mg/kg	2.0 U
Sodium	mg/kg	4110
Thallium	mg/kg	9.9 U
Vanadium	mg/kg	10.0
Zinc	mg/kg	644

5008

Potosi Site
Site Sketch

Sampling Address: 10112 Wolf Road

Exterior Paint: ☐ Good ☐ Poor ☐ Not paint

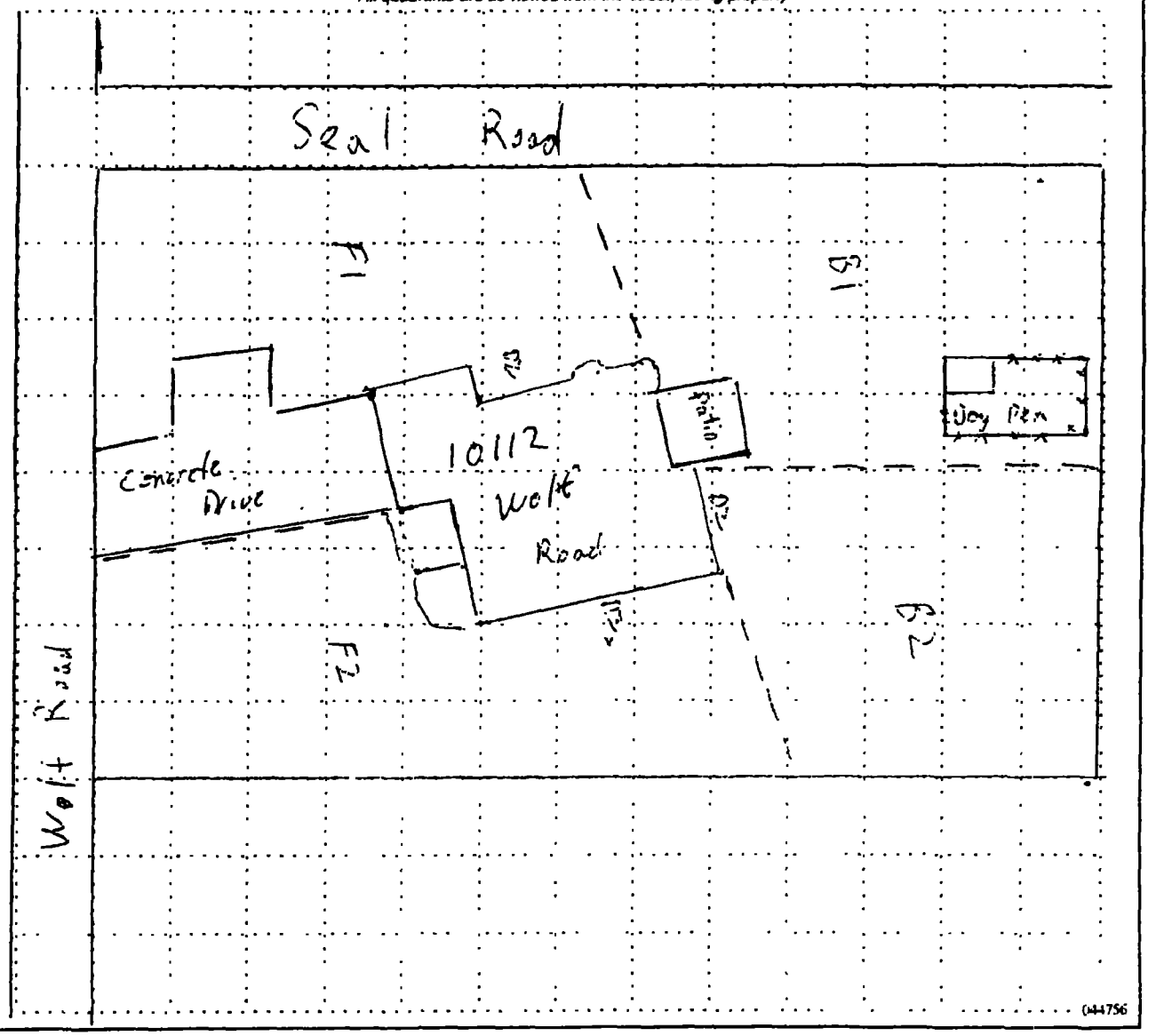
North Arrow: N ↑

Sample Number	Lead Concentration	Sample Collected	LAB
F1	765 ppm	☑	☐
F2	458 ppm	☑	☐
B1	468 ppm	☑	☐
B2	893 ppm	☑	☑
DZ	770 ppm	☑	☐
GZ	ppm	☐	☐
PZ	ppm	☐	☐
water	Number of Samples =	5	1

Samples Collected
Firm: Professional Environmental
Date: 8-19-08
Time: 2:06 PM

Samples Analyzed
XRF Unit: 8932 Book: 3
Date: 8-20-08
Time: 13:30
Staff: CEMS

Legend: F1 = Front Left, F2 = Front Right, B1 = Back Left, B2 = Back Right DZ = Drip Zone, GZ = Garden, PZ = Play
All quadrants are as viewed from the street, facing property



1 Square = 20 feet

Water

Be Alert...
Lead Can Hurt!

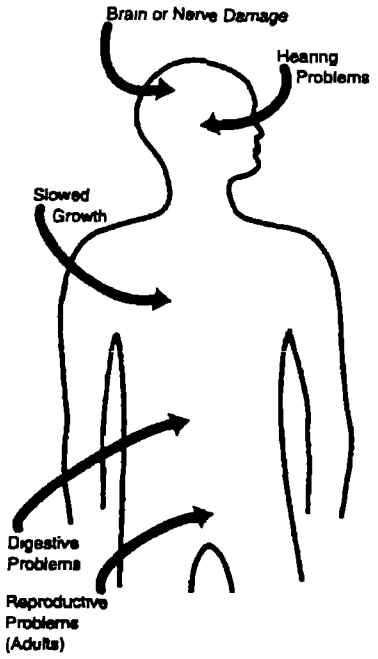
MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES _____ WASHINGTON COUNTY, MISSOURI

Young children up to 6 years old should have a blood lead test done every year.

Knowing your child's blood lead level is important.

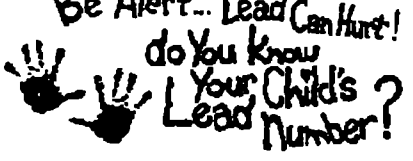
Lead comes from many sources.

Lead poisoning can cause these health effects in infants and young children:



- Slowed physical growth
- Hearing problems
- Nervous system damage (including the brain)
- Learning difficulties (trouble in school)
- Behavior problems including hyperactivity (easily excitable or upset, unable to concentrate, short attention span, etc.)
- Decreased intelligence (I.Q.) scores

Screening for Lead is Most Important For Children Between the Ages of Six Months and Six Years Old



To have your child tested for lead, contact your doctor, or the Washington County Health Department at (573) 438-2164

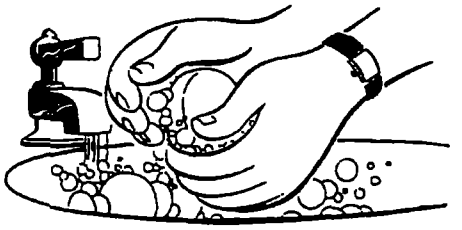
See other side for ways you can help protect your child from lead poisoning. →

Ways to Reduce Your Child's Exposure to Lead

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES — WASHINGTON COUNTY, MISSOURI

Most often children are lead poisoned by swallowing dust, dirt, or paint containing lead. Therefore, the Missouri Department of Health and Senior Services advises the following actions to reduce your child's exposure to lead:

- Wash your child's hands frequently, especially before eating, after playing outside, after handling possible lead-contaminated objects, or after playing with pets. Make sure your child puts only safe, clean objects in his/her mouth (e.g. hands, food, toys, pacifiers, etc).



- Try to keep dust to a minimum in the house (house dust may contain lead). Wet-clean floors, windowsills, cabinets, toys, and other places where children play using a general all-purpose cleaner and warm water. For carpets, wet shampoo or use HEPA vacuums to remove lead dust.

- Do not let your child play on mine tailings.

- Because dirt may contain lead, have children play on solid grass cover.

- Provide your family with a healthy diet that is rich in iron, and calcium and that is low in fats and oils (this will decrease the body's absorption of lead).

- Keep your child away from areas of chipping and flaking paint.

- Keep your child away from areas where lead-related hobbies are practiced (ammunition reloading, lead bullet or sinker making, stained glass with leaded joints, furniture refinishing, etc., all of which can release high lead levels into the home).